

a good deal
longer

? we come
Good style
abhors the
word 'one'
in this
sense

I fear you may be inclined to think that I am not carrying out my programme, in talking, for the most part, about a few physiological matters—the lowest round of the educational ladder. The lowest round it may be, but yet

This is overrated
for many people
think so to think of
real skin,
and do not
faint. Many
sleep under
silk quilts
and get up
refreshed, though
you are right
in the matter.
Why not
inculcate
the excellent
plan of sleeping
in wool alone
throughout
winter?

"The Reign of Law" in Education

Now, believing parents have no right to lay up this crucial difficulty for their children. They have no right, for instance, to pray that their children may be made truthful, diligent, upright, and, at the same time, neglect to acquaint themselves with those principles of moral science the observance of which will guide into truthfulness, diligence, and uprightness of character. For this, also, is the law of God. Observe, not into the knowledge of God, the thing worth

living for: no mental science, and no moral science, is pledged to reveal that. What I contend for is, that these sciences have their part to play in the education of the human race, and that the parent may not disregard them with impunity. My endeavour in the forthcoming lectures will be to sketch out roughly—with your permission—a method of education which, as resting upon a basis of natural law, may look, without presumption, to inherit the Divine blessing. Any sketch I can offer in the few hours before us must be very imperfect and very incomplete; but a hint here and there may be enough to put intelligent mothers on the right lines of thinking with regard to the education of their children.

OUT-OF-DOOR LIFE FOR THE CHILDREN

Let us suppose mother and children arrived at some breezy open "wherein it seemeth always afternoon." In the first place, it is *not* her business to entertain the little people: there should be no story-books, no telling of tales, as little talk as possible, and that to some purpose. Who thinks to

yes! but you
may have to
make a too
didactic
mother who
sits with teaching
her children
with frogs.

This is all
my wish as
an ideal, but
what amount
of open air
would you give
to children
who can only
walk in the
street, say
in Bloomsbury
too far from
the Parks to
get to them
and without
access to a
garden.

By-and-by, the others come back to their mother, and, while wits are fresh and eyes keen, she sends them off on an exploring expedition—who can see the most, and tell the most, about yonder hillock or brook, hedge or copse. This is an exercise that delights the children, and may be endlessly varied, carried on in the spirit of a game, and yet with the exactness and carefulness of a lesson.

"Find out all you can about that cottage at the foot of the hill, but do not pry about too much." Soon they are back, and there is a crowd of excited faces, and a hubbub of eager tongues, and random observations are shot breathlessly into the mother's ear. "There are bee-hives," "We saw a lot of bees going into one," "There is a long garden," "Yes, and there are sunflowers in it," "And hen-and-chicken daisies and pansies," "And there's a great deal of a pretty blue flower with rough leaves, mother, what do you suppose it is?" "Borage for the bees, most likely; they are very fond of it," "Oh, and there are apple and pear and plum trees on one side; there's a little path up the middle, you know," "On which hand-side are the fruit trees?" "The right--no, the left; let me see, which is my thimble-hand? Yes, it is the righthand side," "And there are potatoes and cabbages, and mint and things on the other side," "Where are the flowers, then?" "Oh, they are past the borders, running down each side of the path," "But we have not told mother about that wonderful apple tree; I should think there are a million apples on it, all ripe and rosy!" "A million, Fanny?" "Well, a great many, mother; I don't know how many." And so on, indefinitely, the mother getting by degrees a complete description of the cottage and its garden, and herself throwing the children's random statements into order: "Let me see, about the garden, you have told me that it is long, and it is a straight path up the middle, bordered with flowers, etc. Is the right?"

"This is to play to the children, but the mother is doing invaluable work; she is training their powers of observation and expression, increasing their vocabulary and their range of ideas by giving them the name of the uses of an object at the right moment, when they ask, 'What is it?' and 'What is it for?' And she is training her children in truthful habits, by making them careful to see the fact and to state it exactly, without omission or exaggeration. The child who describes, 'A tall tree, going up into a point, with rather large roundish leaves; not a pleasant tree for shade, because the branches all go up,' deserves to learn the name of the tree, and anything her mother has to tell her about it. But the little brawler, who fails to make it clear whether he is describing an elm or a beech, should get no encouragement; not a foot should his mother move to see his tree, no coaxing should draw her into talk about it, until, in despair, he trots off, and comes back with some more certain note—rough or smooth bark, rough or smooth leaves,—then the mother considers, pronounces, and, full of glee, he carries her off to see for herself.

By degrees the children will learn *discriminatingly* every feature of the landscapes with which they are familiar; and, think what a delightful possession for old age and middle life is a series of pictures imaged, feature by feature, in the sunny glow of a child's mind! The miserable thing about the childish recollections of most persons is, that they are blurred, distorted, incomplete, no more pleasant to look upon than a fractured cup or a torn garment; and the reason is, not that the old scenes are forgotten, but that they were never fully *seen*. At the time, there was no more than a hazy impression that such and such objects were present, and, naturally, after the lapse of years, those features can rarely be recalled of which the child was not *cognizant* when he saw them before him.

"Picture-painting."

So exceedingly delightful is this faculty of taking mental photographs, exact images, of the "beauties of nature" one goes about the world for the refreshment of seeing, that it is worth while to exercise children in another way towards this end, bearing in mind, however, that they see the near and the minute, but can only be made with an effort to look at the wide and the distant. Get the children to look well at some patch of landscape, and then to shut their eyes and call up the picture before them; if any bit of it is blurred, they had better look again. When they have a perfect image before their eyes, let them say what they see. Thus: "I see

a pond; it is shallow on my side, but deep on the other; trees come to the water's edge on that side, and you can see their green leaves and branches so plainly in the water that you would think there was quite a wood underneath. Almost touching the trees in the water, is a bit of blue sky with a soft little white cloud; and when you look up you see that same little cloud, but with a great deal of sky instead of a patch, because there are no trees up there. There are lovely yellow water-lilies round the far edge of the pond, and two or three of the big round leaves are turned up like sails. Near where I am standing three cows have come to drink, and one has got far into the water, nearly up to her neck," etc.

This, too, is an exercise children delight in, but, as it involves some strain on the attention, it is fatiguing, and should only be employed now and then. It is, however, well worth while to give children the habit of getting a bit of landscape by heart in this way, because it is the effort of recalling and reproducing that is fatiguing; while the altogether pleasurable act of seeing, *fully and in detail*, is likely to be repeated unconsciously, until it becomes a habit, by the child who is required now and then to reproduce what he sees. At first, the children will want a little help in the art of seeing. The mother will say, "Look at the reflection of the trees!" There might be a wood under the water. What do those standing-up leaves remind you of?" and so on, until the children have noticed the salient points of the scene. She will even herself learn off two or three scenes, and describe them with closed eyes for the children's amusement; and such little mimics are they, and at the same time so sympathetic, that any graceful fanciful touch which she throws into her descriptions will certainly be reproduced with variations in theirs.

The children will delight in this game of "picture-painting" all the more if their mothers introduce it by describing some great picture-gallery she has seen—pictures of mountains, of moors, of stormy seas, of ploughed fields, of little children at play, of an old woman knitting,—and goes on to say, that though she does not paint her pictures on canvas and have them put in frames, she carries about with her just such a picture-gallery; for, whenever she sees anything lovely or interesting, she looks at it until she has the picture in her "mind's eye;" and then she carries it away with her, her own for ever, a picture "on view" just when she wants it.

It would be difficult to overrate this habit of seeing and storing as a means of after solace and refreshment. The busiest of us have holidays, when we slip our necks out of the yoke, and come face to face with nature, to be healed and blessed by—

"The breathing balm;
The silence and the calm
Of mute inanimate things."

This immediate refreshment is open to everybody according to his measure; but it is a mistake to suppose that everybody is able to carry away a refreshing image of that which gives him delight. Only a few can say, with Wordsworth, of lovely scenes they have visited—

"Though absent long,
These forms of beauty have not been to me
As in a landscape to a blind man's eye;
But oft, in lonely rooms, and mid the din
Of towns and cities, I have owed to them,
In hours of weariness, sensations sweet,
Felt in the blood, and felt along the heart;
And passing even into my purer mind,
With tranquil restoration."

And yet this is no high poetic gift which the rest of us must be content to admire; but a common reward for taking pains in the act of seeing, which parents may do a great deal to confer upon their children.

The mother must beware how she spoils the simplicity, the objective character of the child's enjoyment, by treating his little descriptions as feats of cleverness to be repeated to his father or to visitors; she had better make a vow to suppress herself, "to say nothing to nobody," though the child should show himself a born poet.

Flowers and Trees.

In the course of this "sight-seeing" and "picture-painting," opportunities will occur to make the children familiar with rural objects and employments. If there are farm-lands within reach, they should know meadow and pasture, clover, turnip, and corn field, under every aspect, from the ploughing of the land to the getting in of the crops. Milkwort, eyebright, rest-harrow, lady's-bedstraw, willow-herb, every wild flower that grows in their neighbourhood, they should know quite well; should be able to describe the leaf—its shape, size, growing from the root or from the stem; the manner of flowering—a head of flowers, a single flower, a spike, etc. And, having made the acquaintance of a wild flower, so that they can never forget it or mistake it, they should examine the spot where they find it, so that they will know for the future in what sort of ground to look for such and such a flower. "We should find wild thyme here!" "Oh, this is the very spot for marsh marigolds; we must come here in the spring." If the mother is no great botanist, she will find Miss Ann Pratt's "Wild Flowers" (2 vols. S.P.C.K.) very useful, with its coloured pictures, like enough to identify the flowers by, common English names, and pleasant facts and fancies that the children will delight in.

To make collections of wild flowers for the several months, press them, and mount them neatly on squares of cartridge paper, with the English name, *habitat*, and date of finding of each, affords, at the same time, much happy occupation and much useful training. The children should be made early intimate with the trees, too; should pick out half a dozen trees, oak, elm, ash, beech, in their winter nakedness, and take these to be their year-long friends. In the winter, they will observe the light tresses of the birch, the knotted arms of the oak, the sturdy growth of the sycamore. They may wait to learn the names of the trees until the leaves come. By-and-by, as the spring advances, behold a general stiffening and look of life in the still bare branches; then the beautiful mystery of the leaf-buds, a nest of delicate baby-leaves lying in downy warmth within many waterproof wrappings; oak and elm, beech and birch, each with its own way of folding and packing its leaflets; the ash, with its pretty black stag's-foot of a bud, while—

"A million emeralds break from the ruby-budded time."

But it is hard to keep pace with the wonders that unfold themselves in "the bountiful season, bland." There are the dangling catkins and the little ruby-red pistillate flowers of the hazel—clusters of flowers, both of them, two sorts on a single tree; and the downy staminate catkins of the willow; and the festive breaking out of all the trees into lovely leafage; the learning the patterns of the leaves as they come out, and the naming of the trees from this and other signs. Then the flowers come, each shut up tight in the dainty casket we call a bud, as cunningly wrapped as the leaves in their buds, but less carefully guarded, for these "sweet nurslings" delay their coming, for the most part, until earth has a warm bed to offer, and the sun a kindly welcome.

"Suppose," says Leigh Hunt,—"suppose flowers themselves were new! Suppose they had just come into the world, a sweet reward for some new goodness. . . . Imagine what we should feel when we saw the first lateral stem bearing off from the main one, and putting forth a leaf. How we should watch the leaf gradually unfolding its little graceful hand; then another, then another; then the main stalk rising and producing more; then one of them giving indications of the astonishing novelty—a bud! then this mysterious bud gradually unfolding like the leaf, amazing us, enchanting us, almost alarming us with delight, as if we knew not what enchantment were to ensue, till at length, in all its fairy beauty, and odorous voluptuousness, and mysterious elaboration of tender and living sculpture, shines forth the blushing flower." The flowers, it is true, are not new; but, then, the children are. "And I see kite new," said a little prattler, comparing himself wistfully with a "very old" man. They are "kite new;" and it is the fault of their elders if every new flower they come upon is not to them a *picciola*, a mystery of beauty to be watched from day with unspeakable awe and delight.

Meanwhile, we have lost sight of those half-dozen forest-trees which the children have taken into a sort of comradeship for the year. Presently they have the delight of discovering that the great trees have flowers, too, flowers very often of the same hue as their leaves, and that some trees put off having their leaves until their flowers have come and gone. By-and-by there is the fruit, and the discovery that every tree—with exceptions which they need not learn yet—and every plant bears fruit, "fruit and seed after his kind." All this is stale knowledge to older people, but one of the secrets of the educator is to present nothing as stale knowledge, but to put himself in the position of the child, and wonder and admire with him; for every common miracle which the child sees with his own eyes makes of him, for the moment, another Newton.

It is a capital plan for the children to keep a calendar,—the first oak-leaf, the first tadpole, the first cowslip, the first catkin, the first ripe blackberries, where seen, and when. The next year, they will know when and where to look out for their favourites, and every year will be in a condition to add new observations. Think of the zest and interest, the object, which such a practice will give to daily walks and little excursions. There is hardly a day when some friend may not be expected to hold a first "At Home."

"Living Creatures."

Then, as for the "living creatures," here is a field of quite unbounded interest and eager delight. The domesticated animals are soon taken into kindly fellowship by the little people. Perhaps they live too far from the "real country" for squirrels and wild rabbits to be more to them than a dream of possible delights. But surely there is a pond within reach, where tadpoles may be caught, and carried home in a bottle, fed, and watched through all their changes—fine disappearing, tails getting shorter and shorter, until at last there is no tail at all, and a pretty pert little frog looks you in the face. Turn up any chance stone, and you may come upon a colony of ants. We have always known that it becomes us to consider their ways and be wise; but, now, think of all Sir John Lubbock has just told us to make that twelve-year-old ant of his acquaintance quite a personage. Then, there are the bees. Some of us may have heard Canon Farrar describe that lesson he was present at, on "How doth the little busy bee;" the teacher bright, but the children not responsive; they took no interest at all in

little busy bees. He suspected the reason, and, questioning the class, found that not one of them had ever seen a bee. "Had never seen a bee! Think for a moment," said he, "of how much that implies." Then we were moved by an eloquent picture of the sad child-life from which bees and birds and flowers are all shut out. But how many children are those who don't live in the slums of London, and yet are unable to distinguish a bee from a wasp, or even a bumble, from a honey-bee!

The children should be encouraged to watch, patiently and quietly, until they learn something of the habits and history of bee, ant, wasp, spider, woolly-bear, dragon-fly, and whatever of larger growth comes in their way. "You creatures never have any habits while I am looking!" some little girl in a story-book is made to complain; but that was her fault; the bright keen eyes with which the children are blest were made to see, and see into the doings of creatures too small for the unaided observation of older people. As for the horror which some children show of beetle, spider, worm, that is usually a trick picked up from grown-up people. Kingsley's children would run after their "daddy" with a "delicious worm;" a "lovely toad," a "sweet beetle," carried tenderly in both hands. There are real antipathies, not to be overcome, such as Kingsley's own horror of a spider; but children who are accustomed to hold and admire caterpillars and beetles from their babyhood will not give way to affected horrors. The child who spends an hour in watching the ways of some new "grub" he has come upon will be a man of mark yet. Let all he finds out about it be entered in his diary—by his mother, if writing be a labour to him,—where he finds it, what it is doing, or seems to him to be doing; its colour, shape, legs: some day he will come across the name of the creature, and will recognize the description of an old friend. Some children are born naturalists, with a bent inherited, perhaps, from some unknown ancestor; but every child has a natural interest in the living things about him, which it is the business of his parents to encourage; for but few children are equal to holding their own in the face of public opinion, and, if they see that the things which interest them are indifferent or disgusting to you, their pleasure in them vanishes, and that chapter in the book of nature is closed to them. "It is likely that the 'Natural History of Solborne' would never have been written had it not been that the naturalist's father used to take his boys on daily foraging expeditions, when not a moving or growing thing, not a pebble or a boulder within miles of Solborne escaped their eager examination. Audubon, the great American ornithologist, is another instance of the effect of this kind of early training. 'When I had hardly learned to walk,' he says, 'and to articulate those first words always so endearing to parents, the productions of nature that lay spread all around were constantly pointed out to me. . . . My father generally accompanied my steps, procured birds and flowers for me, and pointed out the elegant movements of the former, the beauty and softness of their plumage, the manifestations of their pleasure, or their sense of danger, and the always perfect forms and splendid attire of the latter. He would speak of the departure and return of the birds with the season, describe their haunts, and, more wonderful than all, their change of living, thus exciting me to study them, and to raise my mind towards their great Creator.'

Town children may get a great deal of pleasure in watching the ways of sparrows—knowing little birds, and easily tamed by a dole of crumbs,—and their day out will bring them in the way of new acquaintances. The child who does not know the portly form and spotted breast of the thrush, the graceful flight of the swallow, the yellow bill of the blackbird, the gush of song which the skylark pours from above, is nearly as much to be pitied as those London children who "had never seen a bee." A pleasant acquaintance, easy to pick up, is the woolly-bear. The moment to seize him is when he is seen shuffling along the ground in a great hurry; he is on the look-out for quiet quarters in which to lie up: pop him into a box, then, and cover the box with net, through which you may watch his operations. Food does not matter—he has other things to attend to. By-and-by he spins a sort of white tent or hammock, into which he retires; you may see through it and watch him, perhaps at the very moment when his skin splits asunder, leaving him, for months to come, an egg-shaped mass without any sign of life. At last the living thing within breaks out of this bundle, and there it is, the handsome tiger-moth, fluttering feeble wings against the net. Most children of six have had this taste of a naturalist's experience, and it is worth speaking of, only because, instead of being merely a harmless amusement, it is a valuable piece of education, of more use to the child than the reading of a whole book of natural history, or much geography and Latin. For the evil is, that children get their knowledge of natural history, like all their knowledge, at second hand. Knowledge is poured into them, and, as Carlyle said of Coleridge's talk, "to be poured into like a bucket, whether you will or no, is not exhilarating to any soul." They are so satiated with wonders that nothing surprises them, and they are so little used to see for themselves that nothing interests them. The cure for this *black condition* is, to let them alone for a bit, and then begin on new lines. Poor children, it is no fault of theirs if they are not as they were meant to be—little curious eager souls, all agog to

explore so much of this wonderful world as they can get at as quite their first business in life.

"He prayeth best who loveth best
All things both great and small;
For the dear God who loveth us,
He made and loveth all."

It would be well if all we persons in authority, parents, and all who act for parents, could make up our minds that there is no sort of knowledge to be got in these early years so valuable to the children as that which they get for themselves of the world they live in. Let them once get touch with nature, and a habit is formed which will be a source of delight through life. We were all meant to be naturalists, each in his degree, and it is inexcusable to live in a world so full of the marvels of plant and animal life, and to care for none of these things.

Consider, too, what an unequalled mental training the child-naturalist is getting for any study or calling under the sun—the powers of attention, of discrimination, of patient pursuit, growing with his growth, what will they not fit him for? Besides, life is so interesting to him that he has no time for the faults of temper that generally have their sources in *ennui*; there is no reason why he should be peevish or sulky or obstinate when he is always kept well amused. One says "he" from force of habit, as speaking of the representative sex, but truly that *she* should be thus conversant with nature is a matter of infinitely more importance to the little girl: she it is who is most tempted to indulge in ugly tempers (as child and woman) because time hangs heavy on her hands; she, whose idler, more desultory habits of mind want the spur and the bridle of an earnest absorbing pursuit, whose feeble health demands to be braced up by an out-of-door life full of healthy excitement. Moreover, it is with girls, little and big, a most true kindness to lift them out of themselves and out of the round of petty personal interests and emulations which too often hem in their lives; and then, with whom but the girls does it rest to mould the generations yet to be born?

Field-love and Naturalists' Books.

Is it advisable, then, to teach the children the elements of natural science, of biology, botany, zoology? On the whole, no: I would not teach them any botany which should necessitate the pulling of flowers to bits; much less should they be permitted to injure or destroy any (not noxious) form of animal life. Reverence for *life*, as a wonderful and awful gift from above, which a ruthless child may destroy but never can restore, is a lesson of first importance to the child:—

"Let knowledge grow from more to more;
But more of *reverence* in us dwell."

The child who sees his mother, with reverent touch, lift an early snowdrop to her lips, learns a higher lesson than the "print-books" can teach. Years hence, when the children are old enough to understand that science itself is, in a sense, sacred, and demands some sacrifices, all the "common information" they have been gathering until then, and the habits of observation they have acquired, will form a capital groundwork for a scientific education. In the mean time, let them consider the lilies of the field, and the fowls of the air. For convenience in describing they should be able to name and distinguish petals, sepals, and so on; and they should be encouraged to make such rough classifications as they can with their slight knowledge of both animal and vegetable forms. Plants with heart-shaped or spoon-shaped leaves, with whole or divided leaves; leaves with criss-cross veins and leaves with straight veins; bell-shaped flowers and cross-shaped flowers; flowers with three petals, with four, with five; trees which keep their leaves all the year, and trees which lose them in the autumn; creatures with a backbone and creatures without; creatures that eat grass and creatures that eat flesh, and so on. To make collections of leaves and flowers, pressed and mounted, and arranged according to their form, affords much pleasure, and, what is better, valuable training in the noticing of differences and resemblances. Patterns for this sort of classification of leaves and flowers will be found in every little book of elementary botany.

The power to classify, discriminate, distinguish between things that differ, is amongst the highest faculties of the human intellect, and no opportunity to cultivate it should be let slip; but a classification got out of books, that the child does not make for himself and is not able to verify for himself, cultivates no power but that of verbal memory, and a phrase or two of Macaulay's "Lament," learnt off, would serve that purpose just as well. The real use of naturalists' books at this stage is to give the child delightful glimpses into the world of wonders he lives in, to reveal the sorts of things to be seen by curious eyes, and fill him with desire to make discoveries for himself. (Mrs Wood has written a dozen interesting little books, full of the information that children crave who have been brought up to care for natural objects, "Common Objects of the Country," "Forest Trees," "My Feathered Friends," "Homes without Hoods," "Common Objects of the Seashore," and others as well known. Miss Arabella Buckley in "The Fairy Land of Science," and "Life and Her Children," strikes a higher note, and writes very charmingly. Mr. J. E. Taylor's works, "Half Hours in the Green Lanes," "Geological Stories," "Flowers," are delightful and simple; then there is Farrer's "Tour round my Garden," and Frank Buckland's "Curiosities of Natural His-

Children then to
be having
calculated, but
it must be
purely a local
name. I have
heard it.

Teeny on is much more correct in
his line "Hae black
than ask birds
in the front of
marsh" have
in the line you
have quoted, for
the green of the
young lime
have is not
the green of an
emerald.

? child
? saints
if the person
be retained

in the child's
presence

when, from the
house of Bondon
of Manchester,
of Birmingham
of Bristol, of
a hundred
places.

Up to what
age would
you make
the restriction?
If you were
certain that you
would forbid
the gathering
of flowers, for
they die
some gathered
than in
their state

? Why Macaulay
surely, then see
for better proof
to more
a chapter for
a child's
reputation book

tory," Miss Giberne's little work about the stars, Darwin's "worms," Sir John Lubbock's books, Kingsley's "Madam How and Lady Why," and plenty more, all pleasant reading, many of them written by scientists, and yet requiring little or no scientific knowledge for their enjoyment.

The mother cannot devote herself too much to this kind of reading, not only that she may read bits to her children about matters they have come across, but that she may be able to answer their queries and direct their observation. And not only the mother, but any woman who is likely ever to spend an hour or two in the society of children should make herself mistress of this sort of information; the children will adore her for knowing what they want to know, and who knows but she may give its bent for life to some young mind destined to do great things for the world.

The Child gets Knowledge by Means of his Senses.

Watch a child standing at gaze at some sight new to him—a plough at work, for instance,—and you will see he is as naturally occupied as is a babe at the breast; he is, in fact, taking in the intellectual food which the working faculty of his brain at this period requires. In his early years the child is all eyes; he observes, or, more truly, he perceives, calling sight, touch, taste, smell, and hearing to his aid, that he may learn all that is discoverable by him about every new thing that comes under his notice. Everybody knows how a baby fumbles over with soft little fingers, and carries to his mouth, and lings that it may produce what sound there is in it, the spoon or doll which supercilious grown-ups give him to "keep him quiet," never thinking that baby is at his lessons, and is learning all about it at a rate utterly surprising to the physiologist, who considers how much is implied in the act of "seeing," for instance: that to the infant, as to the blind adult restored to sight, there is at first no difference between a flat picture and a solid body,—that the ideas of form and solidity are not obtained by sight at all, but are the judgments of experience. Then, think of the vague passes in the air the little fist makes before it lays hold of the object of desire, and you see how he learns the whereabouts of things, having as yet no idea of direction. And why does he cry for the moon? Why does he crave equally, a horse or a house-fly as an appropriate plaything? Because far and near, large and small, are ideas he has yet to grasp. Poor baby has truly a great deal to do before he is in a condition to "believe his own eyes;" but nature teaches so gently, so gradually, so persistently, that the child is never overdone, but goes on gathering little stores of knowledge about whatever comes before him.

And this is the process the child should continue for the first few years of his life. Now is the storing time, which should be spent in laying up images of things familiar. By-and-by, he will have to conceive of things he has never seen: how can he do it except by comparison with things he has seen and knows? By-and-by, he will be called upon to reflect, understand, reason; what material will he have, unless as he has a magazine of facts to go upon? The child who has been made to observe how high in the heavens the sun is at noon on a summer's day, how low at noon on a day in midwinter, is able to conceive of the great heat of the tropics under a vertical sun, and to understand that the climate of a place depends greatly upon the mean height the sun reaches above the horizon.

A great deal has been said, lately, about the danger of overpressure, of requiring too much mental work from a child of tender years. The danger exists, but lies, not in giving the child too much, but in giving him the wrong thing to do, the sort of work for which the present state of his mental development does not fit him. Who expects a boy in petticoats to lift half a hundredweight? But give the child the work nature intended for him, and the quantity he can get through with ease is practically unlimited. Whoever saw a child tired of seeing, of examining in his own way unfamiliar things? This is the sort of mental pabulum for which he has an unbounded appetite, because it is that food of the mind on which, for the present, he is meant to grow. Now, how far is this craving for natural sustenance met? In infant and kindergarten schools, by the object lesson, which is good, so far as it goes, but is something like that bean a day on which the Frenchman fed his horse. The child at home has more new things brought under his notice, but with less method. Neither at home nor at school is much effort made to set before the child the abundant "feast of eyes" which his needs demand.

We older people, partly because of our maturer intellect, partly because of our defective education, get most of our knowledge through the medium of words. We set the child to learn in the same way, and find him dull and slow. Why? because it is only with a few words in common use that he associates any definite meaning; all the rest are no more to him than the vocabularies of a foreign tongue. But set him face to face with a thing, and he is twenty times as quick as you are in knowing all about it; knowledge of things flies to the mind of a child like steel filings to a magnet. Now, consider what a culpable waste of intellectual energy it is to shut up a child, blessed with this inordinate capacity for seeing and knowing, within the four walls of a house, or the dreary streets of a town. Or, suppose that he is let run loose in the country where there is plenty to see, it is nearly as bad to let this great faculty of the child's

dissipate itself in random observation for want of method and direction. There is no end to the store of common information, got in such a way that it will never be forgotten, with which an intelligent child may furnish himself before he begins his school career. The boy who can tell you offhand where to find each of the half-dozen most graceful birches, the three or four finest ash trees in the neighbourhood of his home, has chances in life a dozen to one compared with the lower slower intelligence that does not know an elm from an oak—not merely chances of success, but chances of a larger happier life, for it is curious how certain feelings are linked with the mere observation of nature and natural objects. "The æsthetic sense of the beautiful," says Dr. Carpenter, "of the sublime, of the harmonious, seems in its most elementary form to connect itself immediately with the Perceptions which arise out of the contact of our minds with external Nature;" while he quotes Dr. Morell, who says, still more forcibly, that, "All those who have shown a remarkable appreciation of form and beauty, date their first impressions from a period lying far behind the existence of definite ideas or verbal instruction." Thus, we owe something to Mr. Evans for taking his little daughter Marion with him on his long business drives among the pleasant Warwickshire lanes: the little girl stood up between her father's knees, seeing much and saying little; and the outcome was the scenes of rural life in "Adam Bede," and "The Mill on the Floss." Wordsworth, reared amongst the mountains, becomes a sort of prophet of nature; while Tennyson draws endless imagery from the levels of the eastern counties where he was brought up. Little David Copperfield was "a very observant child," "though," says he, "I think the memory of most of us can go farther back into such times than many of us suppose; just as I believe the power of observation in numbers of very young children to be quite wonderful for its closeness and accuracy. Indeed, I think that most grown men who are remarkable in this respect, may with greater propriety be said not to have lost the faculty, than to have acquired it; the rather, as I generally observe such men to retain a certain freshness, and gentleness, and capacity of being pleased, which are also an inheritance they have preserved from their childhood;"—in which remark Dickens makes his hero talk sound philosophy as well as kindly sense.

The Child should be made Familiar with Natural Objects.

But what is the use of being "a very observant child," if one is not put in the way of things worth observing? And here is the difference between the streets of a town and the sights and sounds of the country; there is plenty to be seen in a town, and children accustomed to the ways of the streets become nimble-witted enough. But the scraps of information one picks up in a town are isolated fragments; they do not hang on to anything else, or come to anything more; the information may be convenient, but no one is the wiser for knowing on which side of the street is Smith's, and which turning leads to Thompson's shop. Now take up a natural object, it does not matter what, and you are studying one of a group, a member of a series; whatever knowledge you get about it is that much towards the science which includes all of its kind. Break off a hazel twig in the spring; you notice a ring of wood round a centre of pith, and there you have at a glance a distinguishing character of a great division of the vegetable world. You pick up a pebble. Its edges are perfectly smooth and rounded: why? you ask. It is water-worn, weather-worn. And that little pebble brings you face to face with *disintegration*, the force to which, more than to any other, we owe the aspects of the world which we call *picturesque*—glens, ravines, valleys, hills. It is not necessary that the child should be told anything about disintegration or exogen, only that he should observe the wood and pith in the hazel twig, the pleasant roundness of the pebble; by-and-by, he will learn the bearing of the facts with which he is already familiar—a very different thing from learning the reason why of facts which have never come under his notice.

It is infinitely well worth the mother's while to take some pains every day to secure, in the first place, that her children spend hours daily amongst rural and natural objects, and, in the second place, to infuse into them, or rather, to cherish in them, the love of investigation. "I say it deliberately," says Kingsley, "as a student of society and of history: power will pass more and more into the hands of scientific men. They will rule, and they will act—cautiously, we may hope, and modestly, and charitably—because in learning true knowledge they will have learnt also their own ignorance, and the vastness, the complexity, the mystery of nature. But they will be able to rule, they will be able to act, because they have taken the trouble to learn the facts and the laws of nature."

But, to enable them to swim with the stream is the least of the benefits this early training should confer on the children; a love of nature, implanted so early that it will seem to them hereafter to have been born in them, will enrich their lives with pure interests, absorbing pursuits, health and good humour. "I have seen," says the same writer, "the young man of fierce passions, and uncontrollable daring, expend healthily that energy which threatened daily to plunge him into recklessness, if not into sin, upon hunting out and collecting, through rock and bay, snow and

tempest, every bird and egg of the neighbouring forest. . . . I have seen the young London beauty, amid all the excitement and temptation of luxury and flattery, with her heart pure, and her mind occupied in a boudoir full of shells and fossils, flowers and seaweeds, keeping herself unspotted from the world, by considering the lilies of the field, how they grow."

Out-of-door Geography.

After this long digression, intended to impress upon mothers the supreme importance of stirring up in their children a love of nature and of natural objects—a deep-seated spring to send up pure waters into the driest places of after life—we must return to the mother whom we have left out-of-doors all this time, waiting to know what she is to do next. This pleasant earth of ours is not to be overlooked in the out-of-door education of the children. "How do you get time for so much?" "Oh, I leave out subjects of no educational value; I do not teach geography, for instance," said an advanced young theorist with all sorts of degrees. But the mother, who knows better, will find a hundred opportunities to teach geography by the way: a duck-pond is a lake, or an inland sea; any brooklet will serve to illustrate the great rivers of the world; a hillock grows into a mountain—an Alpine system; a hazel-copse suggests the mighty forests of the Amazon; a weedy swamp, the rice-fields of China; a field of ripe hay, the boundless prairies of the West; the pretty purple flowers of the common mallow is a text whereon to hang the cotton-fields of the Southern States;—indeed, the whole field of pictorial geography-maps may wait until by-and-by—may be covered in this way.

And not only this; the children should be taught to observe the position of the sun in the heavens from hour to hour, and, by his position, to tell the time of day. Of course they will want to know why the sun is such an indefatigable traveller, and thereby hangs a wonderful tale, which they may as well learn in the "age of faith," of the relative sizes of sun and earth, and of the nature and movements of the latter. "Clouds and rain, snow and hail, winds and vapours, fulfilling His word"—are all every-day mysteries that the mother will be called upon to explain, faithfully, however simply.

The Child and Mother Nature.

Does so wide a programme alarm the mother? Does she with dismay see herself talking through the whole of those five or six hours, and, even at that, not getting through a tithe of the teaching laid out for her? On the contrary, the less she says the better; and, as for the quantity of educational work to be got through, it is the fable of the anxious pendulum over again: it is true, there are countless "ticks" to be ticked, but there will always be a second of time to tick in, and no more than a single tick is to be delivered in any given second. The rapid little people will have played their play, whether of "sight-seeing" or "picture-painting," in a quarter of an hour or so: for the study of natural objects, an occasional "Look!" an attentive examination of the object on the mother's own part, a name given, a remark—a dozen words long—made at the right moment, and the children have begun a new acquaintance which they will prosecute for themselves; and not more than one or two such presentations should occur in a single day.

Now, see how much leisure there is left! The mother's real difficulty will be to keep herself from much talk with the children, and to hinder them from occupying themselves with her. There is only one thing sweeter and more precious to the child than playful prattle between the mother and her little ones; but there is one thing better—the communing with the larger mother, in order to which, the child and she should be left to themselves. This is, truly, a delightful thing to watch: the mother reads her book or knits her sock, checking all attempts to make talk; the child lies on her back and stares up into a tree, or lies face downwards, and stares into a flower—doing nothing, thinking of nothing; or leads a bird's life among the branches, babbling follies to herself, or capers about aimlessly in her mirth;—quite foolish irrational doings, but, all the time, a *fashioning* is going on: Nature is doing her part, with the vow,—

"This child I to myself will take;
She shall be mine, and I will make
A lady of my own."

"The floating clouds their state shall lend
To her; for her the willow bend;
Nor shall she fail to see
E'en in the motions of the storm
Grace that shall mould the maiden's form
By silent sympathy."

"The stars of midnight shall be dear
To her; and she shall lean her ear
In many a secret place
Where zephyr dances their wayward round,
And beauty born of murmuring sound
Shall pass into her face."

"And vital feelings of delight
Shall rear her form to stately height,
Her virgin bosom swell;
Such thoughts to Lucy I will give
While she and I together live
Here in this happy dell."

(WORDSWORTH.)

There is one thing the mother will allow herself to do, as interpreter between nature and the child, but that not often more than once a week or once a month, and with look and gesture of delight rather than with flow of improving words—she will point out to the child some touch of special loveliness, in colouring or grouping, in the landscape or in the heavens. One other thing she will do, but very rarely, and with tender filial reverence (most likely she will say her prayers, and speak out of her prayer, for to touch on this ground with *hard* words is to wound the soul of the child): she points to some lovely flower or gracious tree, not only as a beautiful work, but a beautiful *thought* of God, in which we may believe He finds continual pleasure, and which He is pleased to see His human children rejoice in. Such a seed of sympathy with the Divine thought sown in the heart of the child is worth many of the sermons the man may listen to hereafter, much of the "divinity" he may read.

Out-of-door Games, etc.

The bright hours fly by; and there is still at least one lesson on the programme, to say nothing of an hour or two for games in the afternoon. The thought of a lesson is unavailing, after the discussion of much that is more interesting, and, truly, more important; but it need only be a little of attention will give the greater zest to the pleasure and leisure to follow. The daily French lesson is that which should not be omitted. That children should learn French orally, by listening to and repeating French words and phrases; that they should begin so young that the difference of accent does not strike them, but they repeat the new French word all the same as if it were English and use it as freely; that they should learn a few—two or three, five or six—now French words daily, and that, at the same time, the old words should be kept in use—a point to be considered more fully hereafter; but it is so important to keep tongue and ear familiar with French vocabularies that not a lesson should be omitted. The French lesson may, however, be made to fit in with the spirit of the other out-of-door occupations; the half-dozen words may be the parts—leaves, branches, bark, trunk, of a tree, or the colours of the flowers, or the movements of bird, cloud, lamb, child; in fact, the new French words should be but another form of expression for the ideas, that, for the time, fill the child's mind.

The afternoon's games, after luncheon, are an important part of the day's doings for the elder children, though the little ones have probably worn themselves out by this time with the ceaseless restlessness by means of which nature provides for the due development of muscular tissue in them; let them sleep in the sweet air, and awake refreshed. Meanwhile, the elders play; the more they run, and shout, and toss their arms, the more healthful is the play. And this is one reason why mothers should carry their children off to lonely places, where they may use their lungs to their hearts' content, without risk of annoying anybody. The muscular structure of the organs of voice is not enough considered; children love to indulge in cries and shouts and view halloo, and this "rude" and "noisy" play, with which their elders have not much patience, is no more than nature's way of providing for the due exercise of organs upon whose working powers the health and happiness of the child's future largely depend. People talk of "weak lungs," "weak chest," "weak throat," but perhaps it does not occur to everybody that strong lungs and strong throat are commonly to be had on the same terms as a strong arm or wrist—by exercise, training, use, work. Still, if the children can "give voice" musically, and more rhythmically to the sound of their own voices, so much the better. In this respect, French children are better off than English; they dance and sing through a hundred roundelays—just such games, no doubt, mimic marryings and burials, as the children played at, long ago, in the market-places of Jerusalem.

Most likely, before puritan innovations made us a staid and circumspect people, English lads and lasses of all ages danced out little dramas on the village greens, accompanying themselves with the words and airs of just such *roundels* as the French children sing to-day. We have a few of them left still—to be heard at Sunday-school treats and other gatherings of the children,—and they are well worth preserving: "There came three dukes a-riding, a-riding, a-riding," etc.; "Oranges and lemons, say the bells of St. Clement's," etc.; "Here we come gathering nuts in May," etc.; "What has my poor prisoner done," etc.; and more, all set to delightful sing-song airs that the little feet trip to merrily, the more so, for the pleasant titillations of the words—dukes, nuts, oranges. Who could not go to the tune of such ideas?

The promoters of the kindergarten system have done much to revive games of this kind, but it is doubtful how far the prettiest plays, learnt in school and from a teacher, will take hold of the children as do the games which have been passed on from hand to hand through an endless chain of children, and are not to be found in the print-books at all.

Cricket, tennis, and rounders are the games *par excellence*, if the children are old enough to play them, both as giving free harmonious play to the muscles, and also as serving the highest moral purpose of games in bringing the children under the discipline of rules; but the little family we have in view, all of them under nine, will hardly be up to scientific

Cricket-rules. But
as child could
hardly read
learn them
or himself.

An American
not so English
word.

??
?

The

? non-instrument

When she was with
her father as
his daughter her
name was
Mary Anne.
Marion was a
much later
first name.

? Elder would
be a little
illustration here

?

from the Kingsley does
not use the word
Scientist.

as if she lay on
her mother back.
Remember not all
children are
female.

Dr. Smith

from me too
ideal. When
you turn
children
again.

H

games. Races and chases, "tag," "follow my leader," and any romping game they may invent, will be more to their minds; still better are the hoop, the ball, the shuttlecock, and the invaluable skipping-rope. For the rope, the very best use is for each child to skip with her own, throwing it backwards rather than forwards, so that the tendency of the movement is to expand the chest. Shuttlecock is a fine game, affording scope for ambition and emulation. Her biographer thinks it worth telling that Miss Austin could keep up in "cup and ball" over a hundred times, to the admiration of nephews and nieces; in like manner, any feat of skill in the shuttlecock might be fired with ambition as a family event, so that the children may be fired with ambition to excel in a game which affords most graceful and vigorous play to almost every muscle of the upper part of the body, and has this great recommendation, that it can be as well played within doors as without. Quite the best play is to keep up the shuttlecock with a battledore on either side, so that the muscles on either side are brought equally into play. But to "ordin" about children's games is an idle waste of words, for here fashion is as supreme and as arbitrary as in questions of bonnet or crinoline, and who would think of playing shuttlecock except in the spring?

Climbing is an amusement not much in favour with mothers; torn garments, bleeding knees, and boot-toes rubbed into holes, to say nothing of more serious risks, make a strong case against this form of delight. But, truly, the exercise is so admirable—the body being thrown into endless graceful postures which bring every muscle into play—and the training in pluck, daring, and resource so invaluable, that it is a pity trees and cliffs and walls should be forbidden even to little girls. The mother may do a good deal to avert serious mishaps, by accustoming the very little ones to small feats of leaping and climbing, so that they learn at the same time courage and caution from their own experiences, and are less likely to follow the lead of too daring playmates. Later, the mother had best make up her mind to share the feelings of the hen that hatched a brood of ducklings, remembering that a little scream, a sharp and sudden "Come down instantly!" "Tommy, you'll break your neck!" gives the child a nervous shock nearly as bad for him as a broken leg, and is likely to cause the fall it was meant to hinder, by startling Tommy out of all presence of mind.

The havoc of clothes need not be great if the children are dressed for their little excursions, as they should be, in plainly made garments of some loosely woven woollen material, serge or flannel. Woollen has some advantages over cotton, and moreover linen, as a clothing material; chiefly, that it is a bad conductor; that is to say, it does not allow the heat of the body to free an exit nor the heat of the sun too free an entrance. Therefore, the child in woollen who has become heated in play does not suffer a chill from the sudden loss of this heat, as does the child in a linen garment; also, he is cooler in the sunshine, and warmer in the shade.

Walks in Bad Weather.

All we have said hitherto applies to the summer weather, which is, alas for us, a very limited and uncertain quantity in our part of the world. The question of out-of-door exercise in winter and in wet weather is really more important; for who, that could, would not be abroad in the summer time? Now, if the children are to have what is quite the best thing for them, they should be fully three hours every day in the open air all through the winter, say one hour and a half in the morning, and as long in the afternoon. When frost and snow are on the ground, they have very festive times, what with sliding, snow-balling, and snow-building. But even on the frequent days when it is dirty under foot and dull overhead, the children should be kept interested and alert, so that the heart may do its work cheerfully, and a grateful glow be kept up throughout the body, in spite of clouds and cold weather. All that has been said about "sight-seeing" and "picture-painting," the little French lesson, and observations to be noted in the family diary belongs just as much to winter weather as to summer, and there is no end to the things to be seen and noted. They come across a big tree which they judge, from its build, to be an oak—down it goes in the diary; and when the leaves are out, they come again to see if they are right. Many birds come into view the more freely in the cold weather that they are driven forth in search of food.

"The cattle moan in corners where the fence screens them."

"The sun, with ruddy orb
Ascending, fires the horizon."

"Every herb and every spiny blade
Stretches a length of shadow o'er the field."

"The sparrow peep, and quit the sheltering eaves."

"The reddest warbles still, but in content
With slender notes, and more than half suppress'd;

Pleased with his solitude, and fitting light
From spray to spray, where'er he rests he shakes

From many a twig the pendent drops of ice
That tinkle in the wicker's leaves below."

There is no reason why the child's winter walk should not be as fertile in observations as the poet's; indeed, in one way, it is possible to see the more in winter, because the things to be seen do not crowd each other out.

Winter walks, too, whether in town or country, give great opportunities for cultivating the habit of attention.

The famous conjuror, Robert Houdin, relates in his autobiography, that he and his son would pass rapidly before

* Quoted in Dr. Carpenter's "Mental Physiology."

a shop window, that of a toy-shop, for instance, and each cast an attentive glance upon it. A few steps further on, each drew paper and pencil from his pocket, and tried which could enumerate the greater number of the objects momentarily seen in passing. The boy surpassed his father in quickness of apprehension, being often able to write down forty objects, whilst his father could scarcely reach thirty; yet, on their returning to verify his statement, he was rarely found to have made a mistake. Here is a hint for a highly educational amusement for many a winter's walk.

But what about the wet days? The fact is, that rain, unless of the heaviest, is exhilarating when you are out in it, and does the children no harm at all if they are suitably clothed. But every sort of waterproof garment should be tabooed, because the texture which will not admit rain will not allow of the escape of the insensible perspiration, and one secret of health for people who have no organic disease is the prompt carrying off of the decayed and harmful matters discharged by the skin. The children should have woollen rain-garments—made of coarse serge, for instance,—to be changed the moment they return from a walk, and then, there is no risk of catching cold. This is the common sense of the matter. Wet cloths are put upon the head of a fever patient; by-and-by the cloths dry, and are dipped again: what has become of the water? It has evaporated, and, in evaporating, has carried off much heat from the poor head. Now, that which causes the hot skin of fever is just the one thing to be avoided in ordinary circumstances. To be wet to the skin does a child no more harm than a bath would do him, if the wet clothes do not dry upon him—that is, if the water does not evaporate, carrying off much heat from his body in the process. It is the loss of animal heat which is followed by "colds," and not the "wetting" which mothers are ready to deplore. Keep a child active and happy in the rain, and he gets nothing but good from his walk. The case is altered if the child has a cold already; then an airing would do him good, but active exercise might increase any inflammation already set up.

The Children require Country Air.

I do not know whether it is more than a pretty fancy of Richter's that a spring shower is a sort of electric bath, and a very patent means of health; certainly rain clears the atmosphere—a fact of considerable importance in and about large towns. But it is enough for our purpose to prove that the rain need do no harm; for abundant daily exercise in the fresh air is of such vital importance to the children, that really nothing but sickness should keep them within doors. At the same time, children should never be allowed to sit or stand about in damp clothes; and here is the use of waterproof rain-wraps—to keep them dry on short journeys to church, or school, or neighbour's house, when they cannot very well change their garments.

Every one knows that the breathing of air which has lost none of its due proportion of oxygen is the essential condition of vigorous life and of a fine physique; also, that whatever produces heat, whether it be animal heat, or the heat of fire, candle, gas-lamp, produces that heat at the expense of the oxygen contained in the atmosphere—a bank which is drawn upon by every breathing and burning object; that, in situations where much breathing and burning are going on, there is a terrible drain upon this vital gas; that the drain may be so excessive that there is no longer sufficient oxygen in the air to support animal life, and death results; that where the drain is less excessive but still great, animal life may be supported, and people live a flaccid feeble life in a state of low vitality. Also, that every breathing and every burning object expels a hurtful gas—carbonic acid. A very small proportion of this gas is present in the purest atmospheric air, and in that small proportion it does no harm; but increase that quantity by the action of furnaces, fires, living beings, gas-lamps, and the air is rendered unwholesome, just in proportion to the quantity of superfluous carbonic-acid gas it contains. If the quantity be excessive—as when many people are huddled together in a small unventilated room, or as when the Frenchman chooses to commit suicide by inhaling the fumes of his charcoal stove—speedy death by suffocation is the result. For these reasons, it is not possible to enjoy fulness of life in a town. For grown-up people the stimulus of town life does something to make up for the impurity of town air, as, on the other hand, country people too often forfeit their advantages through the habit of mental sluggishness they let themselves fall into; but, for the children—who not only breathe, but grow; who require, proportionally, more oxygen than adults need for their vital processes—it is absolutely cruel not to give them daily copious draughts of unvitiated, unpolluted air, the sort of air that can be had only remote from towns.

But this is only one of the reasons why, for health's sake alone, it is of the first importance to give the children long days in the open country. They want light, solar light, as well as air. Country people are ruddier than town folk, miners are sallow, so are the dwellers in cellars and in sunless valleys. The reason is that, to secure the ruddy glow of

perfect health, certain changes must take place in the blood—the nature of which it would take too long to explain here,—and that these changes in the blood, the free production of what are called red corpuscles, appears to take place most favourably under the influence of abundant solar light. What is more, men of science are beginning to suspect that not only the coloured light rays of the solar spectrum, but the dark heat rays and the chemical rays minister to vitality in ways not yet fully understood.

There was a charming picture in *Punch* some time ago—one of Du Maurier's—of two little boys airing their English-French on their mother's new maid; two noble little fellows, each straight as a dart, with no superfluous flesh, eyes well opened, head erect, chest expanded, the whole body full of spring even in repose. It was worth looking at, if only as suggesting the sort of physique one delights to see in a child. No doubt the child inherits the most that he is in this respect as in all others; but this is what bringing-up may, with some limitations, effect. The child is born with certain natural tendencies, and, according to his bringing-up, each such tendency runs into a blenheim of person or character, or into a cognate grace. Therefore it is worth while to have even a physical ideal for one's child; not, for instance, to be run away with by the notion that a fat child is necessarily a fine child. The fat child can easily be produced: but the bright eye, the open regard, the springing step; the tones, clear as a bell; the agile graceful movements that characterize the well-brought-up child, are the result, not of bodily well-being only, but of mind and soul according well, of a quick, trained intelligence, and of a moral nature habituated to "the joy of self-control."

LECTURE III.

"HABIT IS TEN NATURES."

THOSE of you, ladies, who heard the two former lectures of this course will have gathered that what I desire to set before you is a method of education based upon natural law. In the first place—but in the second lecture—I tried to point out some of the conditions to be observed, with a view to keep the brain in healthy working order; for it is upon the possession of an active, duly nourished brain that the possibility of a sound education depends. The lecture on *Out-of-door Life* was given first, by way of an introduction to the series. As developing the method of education, it should have come next to order, because its object was to show that the chief function of the child—his business in the world during the first six or seven years of his life—is to find out all he can about whatever comes under his notice by means of his five senses; that he has an insatiable appetite for knowledge got on this way; and that, therefore, the endeavour of his parents should be to put him in the way of making acquaintance freely with nature and natural objects; that, in fact, the intellectual education of the young child should be the education of the perceptive faculties, because the first stages of mental development are marked by the extreme activity of these faculties; and the wisdom of the educator is to follow the lead of nature in the evolution of the complete human being.

My subject to-day—a rather dry, metaphysical one, I fear—seems to me, all the same, to be very well worthy of your attention, as striking the key-note of a reasonable method of education.

"Habit is TEN NATURES!" If I could but make you see with my eyes how much this saying should mean to the educator! How habit, in the hands of the mother, is as his wheel to the potter, his knife to the carver—the instrument by means of which she turns out the design she has already conceived in her brain. It is unpleasant to speak of one's self, but, if you will allow me, I should like to run over the steps by which I have been brought to look upon habit as the means whereby the parent may make almost anything he chooses of his child, because that which has become the dominant idea of one person's life, if it be launched suddenly at another, conveys no very great depth or weight of meaning to the second person—he wants to get at it by degrees, to see the steps by which the other travelled. Therefore, I shall venture to show how I arrived at my present position, which is, that—The formation of habits is education, and Education is the formation of habits.

The Children have no Self-compelling Power.

A good many years ago, I was accustomed to hear, "Habit is TEN NATURES," delivered from the pulpit on at least one Sunday out of four. I had, at the time, just begun to keep school, and was young, and enthusiastic in my work. It was, to my mind, a great thing to be a teacher; it was impossible but that the schoolmistress should leave her stamp on the children. It was her fault if anything went wrong, if any child did badly in school or out of it. There was no degree of responsibility which youthful ardour was not equal to. But, all this real notwithstanding, the disappointing thing was, that nothing extraordinary happened. The girls were good children on the whole, because most of them were the children of parents who had themselves been

brought up with some care; but it was plain that they behaved very much as "twas their nature to." The faults they had they kept; the virtues they had were exercised just as fitfully as before. The good, meek little girl still told lies. The bright generous child was incurably idle. In lessons it was the same thing; the dawdling child went on dawdling, the dull child became no brighter. It was very disappointing. The children, no doubt, "got on"—a little; but there was every one of them with the makings in her of a noble character, of a fine mind, and where was the lever to lift each of these little worlds? Such a lever there must be. This horse-in-a-mill round of geography and French, history and sums, was no more than playing at education; for who remembers the scraps of knowledge he laboured over as a child? and would not the application of a few hours in later life effect more than a year's drudgery at any one subject in childhood? If education is to secure the step-by-step progress of the individual and the race, it must mean something over and above the daily plodding at small tasks which goes by the name.

Looking for guidance to the literature of education, the doctrines of Pestalozzi and, still more, of Froebel were exceedingly helpful to me, as showing the means to secure an orderly expansion of the child's faculties, and, what is even more important, pointing out, as they both do, that the child is, so to speak, an exotic, which can flourish and expand only in a warm temperature of love and gentleness, regulated by even-handed law. At the same time, religious teaching helped the children, gave them motives for continuous effort, and raised their desires towards the best things. But with these great aids from without and from above, there was still the depressing sense of working education by rule of thumb: the advance made by the young people in moral, and even in intellectual power, was like that of a door on its hinges—a swing forward to-day, and back again to-morrow, with little sensible progress from year to year beyond that of being able to do harder sums and read harder books.

Consideration made the reason of the failure plain: there was a warm glow of goodness at the heart of every one of the children, but they were all incapable of steady effort, because they had no strength of will, no power to make themselves do that which they knew they ought to do. Here, no doubt, come in the functions of parents and teachers; they should be able to make the child do that which he lacks the power to compel himself to. But it were poor training that should keep the child dependent upon personal influence. It is the business of education to such some way of supplementing that weakness of will which is the bane of most of us as well as of the children. That the effort of decision is the most exhausting effort of life, has been well said from the pulpit; and if that remains true about ourselves, even when the decision is about trifling matters of going or coming, buying or not buying, it surely is not just to leave the children all the labour of an effort of will whenever they have to choose between the right and the wrong.

What is "Nature?"

"Habit is TEN NATURES," went on being proclaimed in my ears; and at last it came home to me as a weighty saying, which might contain the educational "Open, Sesame!" I was in quest of. In the first place, what is Nature, and what, precisely, is Habit?

It is an astonishing thing when one considers what the child is, irrespective of race, country, or kindred, simply in right of his birth as a human being. That we all have the same instincts and appetites, we are prepared to allow, but that the principles of action which govern all men everywhere are primarily the same, is a little startling; that, for instance, the same desires stir in the breasts alike of savage and of sage: that the desire of knowledge, which shows itself in the child's curiosity about things, and his eager use of his eyes, is equally active everywhere; that the desire of society, which you may see in two babies presented to one another, and all agog with glee and friendliness, is the cause, alike, of village communities amongst savage tribes, and of the philosophical meetings of the learned; that, everywhere is felt the desire of esteem—a wonderful power in the hands of the educator, making a word of praise or blame more powerful as a motive than any fear or hope of punishment or reward.

And it is not only the same desires; all people, everywhere, have the same affections and passions which act in the same way under similar provocation: joy and grief, love and resentment, benevolence, sympathy, fear, and much else, are common to all of us. So, too, of conscience, the sense of duty. Dr. Livingstone mentions that the only addition he felt called upon to make to the moral code of certain of the Zambesi tribes (however little they observed their own law) was, that a man should not have more than one wife. "Evil speaking, lying, hatred, disobedience to parents, neglect of them," were all known to be sin by these dark peoples whom civilized or Christian teaching had never before reached. Not only is a sense of duty common to mankind, but the deeper consciousness of God, however vague such consciousness may be. And all this, and much more, goes to make up the most elemental notion of human nature. Then, *heredity* comes in, and here, if you please, is ten natures: who is to

which is he,
father or son?

most depressing
to every bodily
feeling.

beginners
for would take
not a child
in a carriage
at such times?

why Frenchman
There are many
cases in
England. But
should be
inclined to leave
out the illustration

impossible

But to attempt to review in an hour the subjects proper for the child's intellectual education is a disappointing effort, and I can only hope that enough has been said to show the necessity of grave consideration on the mother's part before she allows promiscuous little lesson books to be put into the hands of her children, or trusts ill-qualified persons to strike out methods of teaching for themselves.

LECTURE VI.

THE WILL—THE CONSCIENCE—THE DIVINE LIFE IN THE CHILD.

The Will.

TO-DAY we have to consider a subject of unspeakable importance to every being called upon to sustain a reasonable life here, with the hope of the fuller life hereafter. I mean the government of the kingdom of Mansoul. Every child who lives long enough in the world is invested, by degrees, with this high function, and it is the part of his parents to instruct him in his duties and to practise him in his tasks. Now, the government of this kingdom of Mansoul is, like that of some other well-ordered States, carried on in three chambers, each chamber with its own functions, exercised, not by a multitude of consellers, but by a single minister. In the outer of the three chambers, sits the Will. Like that Roman centurion, he has soldiers under him: he says to this man, Go, and he goeth; to another, Come, and he cometh; to a third, Do this, and he doeth it. In other words, the executive power is vested in the Will. If the Will have the habit of authority, if it deliver its mandates in the tone that constrains obedience, the kingdom is, at any rate, at unity with itself. If the will be feeble, of uncertain counsels, poor Mansoul is torn with disorder and rebellion.

What is the Will? I do not know; it would appear an ultimate fact, not admitting of definition; but there are few subjects on which those who have the education of children in their hands make more injurious mistakes, and, therefore, it is worth while to consider as we may, what are the functions of the will, and what are its limitations.

In the first place, will does not necessarily come into play in any of the aspects in which we have hitherto considered the child. He may reflect and imagine; be stirred by the desire of knowledge, of power, of distinction; may love and esteem; may form habits of attention, obedience, diligence, sloth, idleness—that is, without exercising will, purposing, willing these things for himself. So far is this true, that there are people who live through their lives without an act of deliberate will: amiable, easy-going people, on the one hand, hedged in by favouring circumstances; and poor souls, on the other, whom circumstances have not saved, who have drifted from their moorings, and are hardly to be named by those they belong to. Great intellectual powers by no means imply a controlling will. We all know how Coleridge had to be taken care of, because he had so little power of willing. His thoughts were as little under his own volition as his actions, and the fine talk people went to hear was no more than an endless pouring forth of ideas connected by no other link than that of association; though, so finely trained was his mind, that his ideas flowed methodically—of their own accord, so to speak.

It is not necessary to say a word about the dignity and force of character which a confirmed will gives to its possessor. In fact, character is the result of conduct regulated by will. We say, So-and-so has a great deal of character, such another is without character; and we might express the fact equally by saying, So-and-so has a vigorous will, such another has no force of will. We all know of lives, rich in gifts and graces, which have been wrecked for the lack of a determining will. The will is the controller of the passions and motions, the director of the desires, the ruler of the appetites. But, observe, the passions, the desires, the appetites, are there already, and the will gathers force and vigour only as it is exercised in the repression and direction of these; for though the will appears to be of purely spiritual nature, yet it behaves like any member of the body in this—that it becomes vigorous and capable in proportion as it is duly nourished and fitly employed. The villain of a novel, it is true, is, or, rather used to be, an interesting person, because he was always endowed with a powerful will, which acted, not in controlling his violent passions, but in aiding and abetting them; the result was adiabatical being out of the common way of nature. And no wonder, for, according to natural law, the faculty which does not fulfil its own functions is punished by loss of power; if it does not cease to be, it becomes as though it were not; and the will, being placed in the seat of authority, has no power to carry its forces over to the mob—the disorder would be too fearful, just as when the executive powers of a State are seized upon by a riotous mob, and there are shootings in the highways and hangings from the lanterns, infinite confusion everywhere.

I am anxious to bring before you this limitation of the will to its own proper functions, because parents often enough fall into the very metaphysical blunder we have seen in the novel-writer. They admire a vigorous will, and rightly. They know that if their child is to make his mark

in the world it must be by force of will. What follows? The baby screams himself into fits for a forbidden plaything, and the mother says, "He has such a strong will." The little fellow of three stands roaring in the street, and will neither go hither nor thither with his nurse, because "he has such a strong will." He will rule the sports of the nursery, will monopolize his sister's playthings, all because of this "strong will." Now we come to a divergence of opinion: on the one hand, the parents decide that, whatever the consequence, the child's will is not to be broken, so all his vagaries must go unchecked; on the other, the decision is, that the child's will must be broken at all hazards, and the poor little being is subjected to a dreary round of punishment and repression. But, all the time, nobody perceives that it is the mere want of will that is the matter with the child. He is in a state of absolute "wilfulness,"—the rather unfortunate word we use to describe the state in which the will has no controlling power; *wilfulness*, if there were such a word, would describe this state more truly. Now, this confusion in the minds of many persons, between the state of wilfulness and that of being dominated by will, leads to mischievous results, even where wilfulness is not fostered nor the child unduly repressed: it leads to the neglect of the due cultivation and training of the will, that almost divine faculty, upon the due development of which every other gift, be it beauty or genius, strength or skill, depends for its value.

What, then, is wilfulness, if it is not an exercise of will? Simply this: remove bit and bridle—that is, the control of the will—from the appetites, the desires, the emotions, and the child who has mounted his hobby, be it resentment, jealousy, desire of power, desire of property, is another Maseppa, borne along with the speed of the swift and the strength of the strong, and with no power at all to help himself. Appetite, passion, there is no limit to their power and their persistence if the appointed check be removed; and it is this impetus of appetite or of passion, this apparent determination to go in one way and no other, which is called wilfulness and mistaken for an exercise of will. Whereas the *determination* is only apparent; the child is, in fact, hurled along without resistance, because that opposing force which should give balance to his character is undeveloped and untrained. The will has its superior and its inferior, what may be called its moral and its mechanical functions; and that will which, for want of practice, has grown flaccid and feeble in the exercise of its higher functions may yet be able for the ordering of such matters as going or coming, sitting or standing, speaking or refraining from speech. Again, though it is impossible to attain moral excellence of character without the agency of a vigorous will, the will itself is not a moral faculty, and a man may attain great strength of will in consequence of continued efforts in the repression or direction of his appetites or desires, and yet be an unworthy man; that is, he may be keeping himself in order from unworthy motives, for the sake of appearances, for his own interest, even for the injury of another. Once again, though a disciplined will is not a necessary condition of the Christian life, it is necessary to the development of the heroic Christian character. A Gordon, a Havelock, a Paul, a Florence Nightingale, must be a person of vigorous will. In this respect, as in all others, Christianity reaches the feeblest souls. There is a wonderful Guido "Magdalen" in the Louvre, with a mouth which has plainly never been set to any resolve, for good or ill—a lovely face moulded by the helpless following of the inclination of the moment; but you look up to the eyes, which are raised to meet the gaze of eyes not shown in the picture, and the countenance is transfigured, the whole face is aglow with a passion of service, love, and self-surrender. All this the Divine grace may accomplish in weak unwilling souls; and then they will do what they can, but their power of service is limited by their past. Not so the child of the Christian mother, whose highest desire is to train him for the Christian life. When he wakes to the consciousness of Whom he is and Whom he serves, she would have him ready for that high service, with every faculty in training—a man of war from his youth; above all with an effective will, to will and to do of His good pleasure.

Before we consider how to train this "sole practical faculty of man," we must know how the will operates—how it manages the ordering of all that is done and thought in the kingdom of Mansoul. "Can't you make yourself do what you wish to do?" says Guy, in the "Heir of Redcliffe," to poor Charlie Edmonston, who has never been in the habit of making himself do anything. There are those, no doubt, who have not even arrived at wishing, but most of us desire to do well; what we want to know is, how to make ourselves do what we desire. And here is the line which divides the effective from the non-effective people, the great from the small, the good from the well-intentioned and respectable; it is in proportion as a man has self-controlling, self-compelling power that he is able to do, even of his own pleasure; that he can depend upon himself, and be sure of his own action in emergencies. Now, how does this autocrat of the bosom behave? Is it with a stern "Thou shalt," "Thou shalt not," that the subject man is coerced into obedience? By no means. Is it by a plausible show of reasons, mustering of motives? Not this either. Since Mr. John Stuart Mill taught us that "all that man does, or can do, with matter" is to "move one thing to or from another," we need

not be surprised if great moral results are brought about by what seem inadequate means; and a little bit of nursery experience will show better than much talking what is possible to the will. Baby tumbles, gets a bad bump, and cries piteously. The experienced nurse does not "kiss the place to make it well," or show any pity for baby's trouble—that would make matters worse; the more she pities, the more he sobs. She hastens to "change his thoughts," so she says; she carries him to the window to see the "gee-gees," gives him his pet picture book, his dearest toy, and the child pulls himself up in the middle of a sob, though he is really badly hurt. Now, this, of the knowing nurse, is precisely the part the will plays towards the man. It is by force of will that a man can "change his thoughts," transfer his attention from one subject of thought to another, and that, with a shock of mental force that he is distinctly conscious of. And this is enough to save a man and to make a man, this power of making himself think only of those things which he has beforehand decided that it is good to think upon. His thoughts are wandering on forbidden pleasure to the hindrance of his work; he pulls himself up, and deliberately fixes his attention on those incentives which have most power to make him work, the leisure and pleasure which follow honest labour, the duty which binds him to the fulfilling of his task. His thoughts run in the groove he *wills* them to run in, and work is no longer an effort. Again, some slight affront has called up a flood of resentful feeling; So-and-so should not have done it, he had no right, it was mean, and so on through all the hard things we are ready enough to say in our hearts of an offender against our *amour propre*. But the man under the control of his own Will does not allow this to go on: he does not fight it out with himself, and say, "This is very wrong in me. So-and-so is not so much to blame, after all." He is not ready for that yet; but he just compels himself to think of something else—the last book he has read, the next letter he must write, anything in erecting enough to divert his thoughts. When he allows himself to go back to the cause of offence, behold, all rancour is gone, and he is able to look at the matter with the coolness of a third person. And this is true, not only of the risings of resentment, but of every temptation that besets the flesh and spirit. Again, the sameness of his duties, the weariness of doing the same thing over and over, fills him with disgust and despondency, and he relaxes his efforts;—but not if he be a man under the power of his own will, because he simply does not allow himself in idle discontent; it is always within his power to give himself something pleasant, something outside of himself to think of, and he does so, and, given, what we call a "happy frame of mind," no work is laborious. It is something to know what to do with ourselves when we are best, and the knowledge of this way of the will is so far the secret of a happy life that it is well worth imparting to the children. Are you cross? Change your thoughts. Are you tired of trying? Change your thoughts. Are you craving for things you are not to have? Change your thoughts; there is a power within you, your own will, which will enable you to turn your attention, your thoughts that make you unhappy and *wrong*, to thoughts that make you happy and *right*. And this is the exceedingly simple way in which the will acts; this is the sole secret of the power over himself which the strong man wields—he can compel himself to think of what he chooses, and will not allow himself in thoughts that breed mischief.

But you perceive that, though the will is all-powerful within certain limits, these are but narrow limits after all. Much must go before and along with a vigorous will if it is to be a power in the ruling of conduct. For instance, the man must have acquired the habit of *attention*, the great importance of which we have already considered. There are bird-witted people, who have no power of thinking connectedly for five minutes under any pressure, from within or from without. If they have never been trained to apply the whole of their mental faculties to a given subject, why, no energy of will, supposing they had it, which is impossible, could make them think steadily thoughts of their own choosing or of any one else's. Here is how the parts of the intellectual fabric dovetail: power of will implies power of attention; and before the parent can begin to train the will of the child, he must have begun to form in him the habit of attention.

Again, we have already considered the fatal facility in evil, the impulse towards good, which *habit* gives. Habit is either the ally or the opponent, too often the frustrator of the will. The unhappy drunkard does *will* with what strength there is in him; he turns away the eyes of his mind from beholding his snare; he plies himself assiduously with other thoughts; but, alas, his thoughts will only run in the accustomed groove of desire, and *habit* is too strong for his feeble will. We all know something of this struggle between habit and will in less vital matters. Who is without some dilatory, procrastinating, in some way tiresome habit, which is in almost daily struggle with the rectified will? But I have already said so much about the duty of parents to ease the way of their children by laying down for them the lines of helpful habits, that it is unnecessary to say a word more here of habit as an ally or hinderer of the will.

And, once more, only the man of cultivated reason is capable of being ruled by a well-directed will. If his understanding does not show good cause why he should do some

solid reading every day, why he should cling to the faith of his fathers, why he should take up his duties as a citizen, the movements of his will will be feeble and fluctuating, and very barren of results. And, indeed, worse may happen; he may take up some wrong-headed, or even vicious notion, and work a great deal of mischief by what he feels to be a virtuous effort of will. The parent may venture to place the power of will in the hands of his child, only in so far as he trains him to make a reasonable use of so effective an instrument.

One other limitation of the will we shall consider presently; but, supposing the parent take pains that the child shall be in a fit state to use his will, how is he to strengthen that will, so that, by-and-by, the child may employ it to control his own life by? We have spoken already of the importance of training the child in the habit of obedience. Now, obedience is valuable only in so far as it helps the child towards making himself do that which he knows he ought to do. Every effort of obedience which does not give him a sense of conquest over his own inclinations, helps to enslave him, and he will resent the loss of his liberty by running into licence when he can. That is the secret of the misbehaving of many strictly brought up children. But invite his co-operation, let him heartily intend and purport to do the thing he is bidden, and then it is his own will that is compelling him, and not yours; he has begun the greatest effort, the highest accomplishment of human life—the making, the compelling of himself. Let him know what he is about, let him enjoy a sense of triumph, and of your congratulation, whenever he fetches his thoughts back to his tiresome sum, whenever he makes his hands finish what they have begun, whenever he throws the black dog off his back, and produces a smile from a clouded face. Then, as was said before, let him know the secret of *willing*; let him know that, by an effort of will, he can turn his thoughts to the thing he wants to think of—his lessons, his prayers, his work, and away from the thing he should not think of;—that, in fact, he can be such a brave, strong little fellow, he can make himself think of what he likes; and let him try little experiments;—that, if he once gets his thoughts right, the rest will take care of itself: he will be sure to do right then;—that, if he feels cross, naughty thoughts coming upon him, the plan is, to think hard about something else, something nice—his next birthday, what he means to do when he is a man. Not all this at once, of course; but line upon line, precept upon precept, here a little, and there a little, as opportunity offers. Let him get into the habit of managing himself, controlling himself, and it is astonishing how much self-compelling power quite a young child will exhibit.

"Restrain yourself, Tommy?" I once heard a wise aunt say to a boy of four, and Tommy restrained himself, though he was making a terrible hullabaloo about some small trouble. All this time, the will of the child is being both trained and strengthened; he is learning how and when to use his will, and it is becoming every day more vigorous and capable. Let me add one or two wise thoughts from Dr. Morell's "Introduction to Mental Philosophy." "The education of the will is really of far greater importance, as shaping the destiny of the individual, than that of the intellect. . . . Theory and doctrine, and inculcation of laws and propositions, will never of themselves lead to the uniform habit of right action. It is by doing, that we learn to do; by overcoming, that we learn to overcome; and every right act which we cause to spring out of pure principles, whether by authority, precept, or example, will have a greater weight in the formation of character than all the theory in the world."

The Conscience.

But the will by no means carries on the government of the kingdom of Mansoul single-handed. True, the will wields the executive power; it is only by *willing* we are enabled to do; but there is a higher power behind, whose mandate the will does no more than express. *Conscience* sits supreme in the inner chamber. Conscience is the lawgiver, and utters the "Thou shalt" and the "Thou shalt not" whereon the will takes action; the judge, too, before whom the offending soul is summoned; and from the "Thou art the man," of conscience, there is no appeal.

"I am, I ought, I can, I will"—these are the steps to that ladder of St. Augustine, whereby we—

"Rise on stepping stones,
Of our dead selves to higher things."

"I am"—we have the power of knowing ourselves. "I ought"—we have within us a moral judge, to whom we feel ourselves subject, and who points out and requires of us our duty. "I can"—we are conscious of power to do that which we perceive we ought to do. "I will"—we determine to exercise that power with a volition which is in itself a step in the execution of that which we will. Here is a beautiful and perfect chain, and the wonder is, that, so exquisitely constituted as he is for right-doing, error should be even possible to man. But of the sorrowful mysteries of sin and temptation it is not my place to speak here; you will see that it is because of the sad possibilities of ruin and loss that lie about every human life, that I am pressing upon mothers the duty of saving their children by the means put into their hands. Perhaps it is not too much to say, that ninety-nine out of a hundred lost lives lie at the door of parents

"Is this Saint Paul,
and would you
put him after
Gordon and
Havelock."

You mean a person
in the position
of those people
must be without
the will they
would not
be they